N-Acetylneuraminic Acid Phosphatase (NANP) Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	N-Acetylneuraminic Acid Phosphatase (NANP), Recombinant Protein
Full Product Name	Recombinant Human N-Acetylneuraminic Acid Phosphatase
Product Gene Name	NANP recombinant protein
Product Synonym Names	NANP Human; N-Acetylneuraminic Acid Phosphatase Human Recombinant; N-acylneuraminate-9-phosphatase; Haloacid dehalogenase-like hydrolase domain-containing protein 4; Neu5Ac-9-Pase; NANP; HDHD4; MGC26833; C20orf147; dJ694B14.3
Sequence	MRGSHHH HHH GMASMTGGQQ MGRDLYDDDD KDRWGS MGLS RVRAVFFDLD NTLIDTAGAS RRGMLEVIKL LQSKYHYKEE AEIICDKVQV KLSKECFHPY NTCITDLRTS HWEEAIQETK GGAANRKLAE ECYFLWKSTR LQHMTLAEDV KAMLTELRKE VRLLLLTNGD RQTQREKIEA CACQSYFDAV VVGGEQREEK PAPSIFYYCC NLLGVQPGDC VMVGDTLETD IQGGLNAGLK ATVWINKNGI VPLKSSPVPH YMVSSVLELP ALLQSIDCKV SMST
Host	E Coli
Form/Format	The NANP solution (0.5 mg/ml) contains 20mM Tris-HCl buffer (pH8.0) containing 10% glycerol, 2mM DTT and 100mM NaCl. Sterile Filtered colorless solution.
Purity/Purification	Greater than 90.0% as determined by SDS-PAGE.
Preparation and Storage	NANP should be stored desiccated below -18 degree C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.
Molecular Weight	27,813 Da
OMIM	610763
3D Structure	ModBase 3D Structure for Q8TBE9
Product Categories/Family for NANP recombinant protein	Enzymes; Phosphatase
Related Product Information for NANP recombinant protein	**Description:** NANP Human Recombinant fused with a 36 amino acid His tag at N-terminus produced in E Coli is a single, non-glycosylated, polypeptide chain containing 284 amino acids (1-248 a.a.) and having a molecular mass of 31.9kDa. The NANP is purified by proprietary chromatographic techniques. **Introduction:** N-acylneuraminate-9-phosphatase (NANP) belongs to the haloacid dehalogenase (HAD) family and is responsible for dephosphorylating N-acylneuraminate 9-phosphate to form N-acylneuraminate (N-acylneuraminate 9-phosphate + H2O = N-acylneuraminate + phosphate). The catalytic activity of NANP is relies on the presence of magnesium and is inhibited by vanadate and calcium, which is typical of the HAD phosphatase family.
Other Notes	Small volumes of NANP recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for NANP purchase	MBS144192 is a recombinant protein targeting NANP. Also known as Recombinant Human N-Acetylneuraminic Acid Phosphatase. Host: E Coli.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for NANP. It may not necessarily be applicable to this product.

NCBI GI #	23308749

NCBI GeneID	140838
NCBI Accession #	NP_689880.1
UniProt Primary Accession #	Q8TBE9
UniProt Secondary Accession #	Q5JYN8; Q8TE97; Q9Y3N0; B3KP12
UniProt Related Accession #	Q8TBE9
GenBank Nucleotide #	NM_152667.2
NCBI Official Full Name	N-acylneuraminate-9-phosphatase
NCBI Official Synonym Full Names	N-acetylneuraminic acid phosphatase
NCBI Official Symbol	NANP
NCBI Official Synonym Symbols	HDHD4; C20orf147; dJ694B14.3
UniProt Protein Name	N-acylneuraminate-9-phosphatase
UniProt Synonym Protein Names	Haloacid dehalogenase-like hydrolase domain-containing protein 4; Neu5Ac-9-Pase
Protein Family	N-acylneuraminate-9-phosphatase
UniProt Gene Name	NANP
UniProt Synonym Gene Names	C20orf147; HDHD4
UniProt Entry Name	NANP_HUMAN
NCBI Protein Information	N-acylneuraminate-9-phosphatase; Neu5Ac-9-Pase; haloacid dehalogenase-like hydrolase domain containing 4; haloacid dehalogenase-like hydrolase domain-containing protein 4
UniProt Comments for NANP	HDHD4: Belongs to the HAD-like hydrolase superfamily. NANP family. Protein type: Carbohydrate Metabolism - amino sugar and nucleotide sugar; EC 3.1.3.29; Phosphatase (non-protein) Chromosomal Location of Human Ortholog: 20p11.1 Cellular Component: cytosol Molecular Function: N-acylneuraminate-9-phosphatase activity Biological Process: N-acetylglucosamine biosynthetic process; N-acetylneuraminate biosynthetic process; cellular protein metabolic process; dephosphorylation; dolichol-linked oligosaccharide biosynthetic process; protein amino acid N-linked glycosylation via asparagine; post-translational protein modification
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